



# Walleye on the Move

By Jeff Hendrickson

*The author releases one of the many walleye tagged for study purposes.*

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*Walleye movements have been studied by many researchers in many different lakes. The common thinking is that these fish move to where food is abundant. Walleye in North Dakota's Missouri River System are no exception, but because of the size and configuration of the fishery, there are opportunities for some interesting underwater journeys.*

*Fisheries personnel with the North Dakota Game and Fish Department have tagged more than 21,000 walleyes since 1984 during five studies on the Missouri River System. The tagging process, plus returns from anglers who have caught tagged fish, have revealed many interesting facts about walleye movement within the system.*

## Spring Tagging

A good time to tag walleyes is in spring when fish congregate in spawning areas such as Beaver Bay on Lake Oahe; a stretch of the Missouri River near Bismarck; and in Lake Sakakawea at White Earth Bay, northern Van Hook Arm and Snake Creek.

Walleye have a strong drive to return to the same spawning area each spring. More than 95 percent of returns during tagging include marked fish captured at the same location at which they were originally tagged.

Some general trends in walleye movement are: More than 70 percent of walleye landed by anglers are caught within 20 miles of where they spawned; there is a gradual movement away from spawning areas until August, when fish tend to move back toward spawning areas; walleye tagged near the upper end of reservoirs (Beaver Bay and White Earth Bay) move the greatest distances; and females tend to move farther from spawning areas than males.

These generalities have been common to all Game and Fish Department studies, but the exceptions provide the most interesting information on walleye movements.

## Exceptions to the Rule

Walleye can move freely between dams on the Missouri River System, while some fish have even gone through Garrison Dam and the Snake Creek embankment. Ten walleye tagged at Snake Creek were caught below Garrison Dam in the Tailrace and one was caught in Lake Audubon.

Many (75) walleye tagged in Lake Oahe and the Missouri River near Bismarck traveled upstream to Garrison Dam Tailrace or downstream to Oahe Dam. Most movement is upstream as five of six fish were caught in the Garrison Dam Tailrace.

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*More than 21,000 walleye have been tagged in the Missouri River System since 1984.*



One walleye tagged near Bismarck was caught by an angler at Okojobo Bay near Oahe Dam in South Dakota, swimming 221 miles in 117 days. Another was tagged at Garrison Dam Tailrace and caught 294 miles downstream at Oahe Dam six years later.

Two walleyes tagged at White Earth Bay were caught 277 miles upstream in Montana's Fort Peck Dam Tailrace. The champion distance swimmer was a female tagged at White Earth Bay and caught 50 miles up the Milk River in Montana. She swam 321 miles in 108 days.

## Multiple Captures

Walleye caught more than once provide good information on movement. Approximately one out of four walleye released by anglers is recaptured by another angler.

That's why fisheries biologists urge anglers to leave the tag on the fish. Before you release it, write down the tag number, along with date and location. Report the information on the Game and Fish Department's website at

gf.nd.gov, or call any Department office.

Several hundred fish have been caught at least two times, many have been caught three times, and a few have been caught up to five times. Here's a look at some of those fish:

- A 10-inch walleye (No. 12,027) tagged at Kimball Bottoms on the Missouri River in April 1999 was caught and released three times before being harvested at the mouth of the Heart River, a feeder stream to the Missouri, in June 2000.

- A 16-inch female (No. 404) was tagged at Graner Bottoms on the Missouri River south of Bismarck on May 22, 1993. She was caught and released by an angler at Blue Blanket Bay on Lake Oahe (106 miles downstream) on August 17, 1993. She was then caught 180 miles upstream near Stanton in October 1997.

- A 15-inch male (No. 7,779) was tagged at Lake Sakakawea's Parshall Bay in May 1996. He was caught during spawning at Parshall Bay in 1999, 2001 and 2002; and harvested by an angler at Shell Village in August 2003.

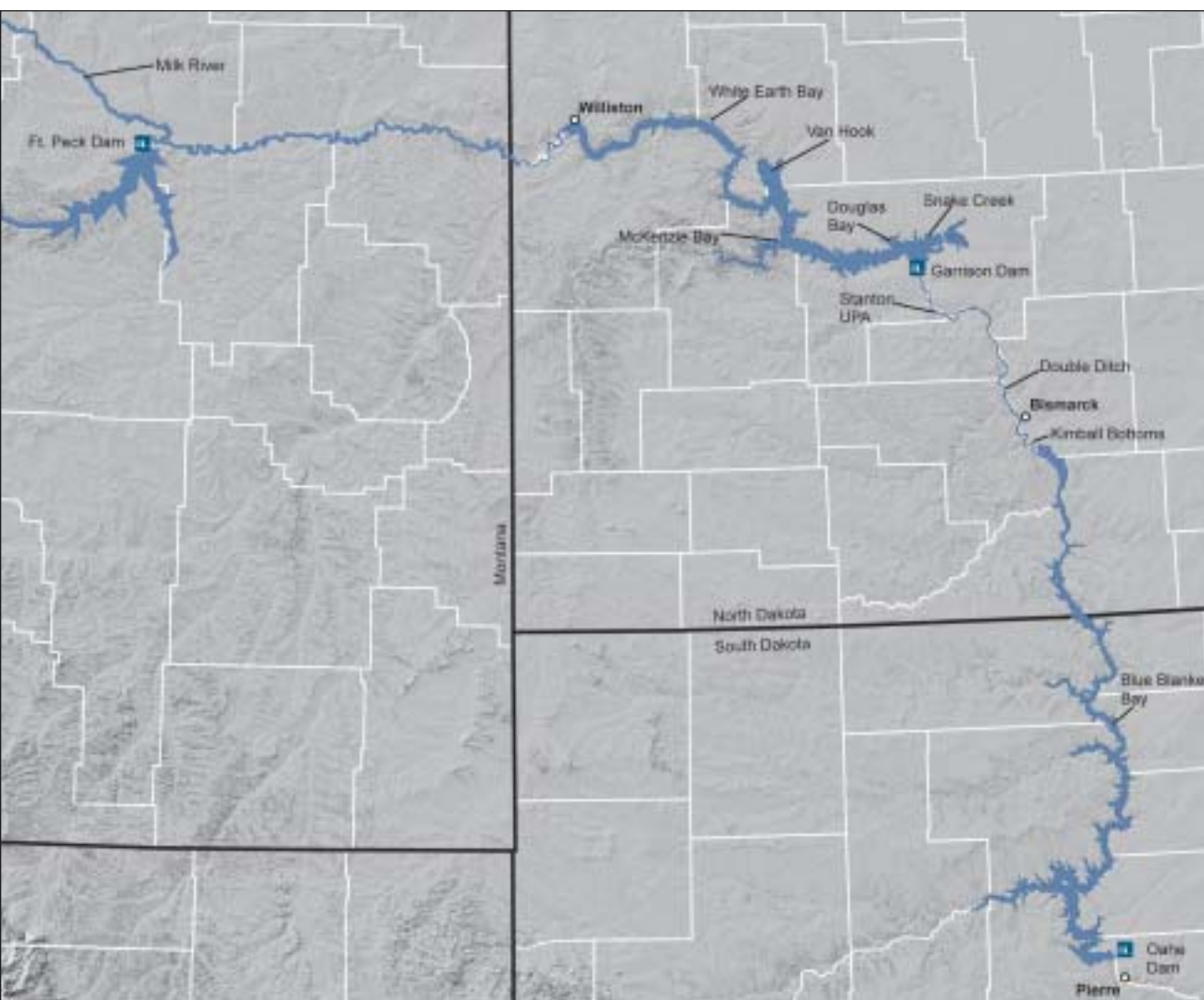
- A 26-inch female (No. 27,662) was tagged at Parshall Bay in May 2003. She was then caught at Parshall Bay and 8-Pound Island by two different anglers on June 8, 2003; and caught and released again at Horseshoe Island on July 1, 2003.

- A 15-inch male (No. 32,023) tagged at White Earth Bay was caught – after making it through Garrison Dam – 45 days and 168 miles later in the Missouri River near Double Ditch just north of Bismarck.

- A 26-inch female (No. 1,820) was tagged at White Earth Bay in 1985. She was caught during spawning at White Earth Bay in 1989 and 1990; caught and released by an angler at Bear Den Bay in May 1990; and returned to spawn at White Earth Bay again in 1991.

- The multiple-capture champ was a 20-inch female (No. 8,351) tagged at Snake Creek in May 1996. She was then caught during spawning at Snake Creek in 1997, 2002 and 2005; caught by an angler at Douglas Bay in June 2005; and harvested by an angler at McKenzie Bay in August 2005. This fish was at least 15-years-old when she was harvested.

*The map shows some of the locations where tagged walleye showed up during their travels.*



These are some of the more interesting "movers" on the Missouri River System. Anglers who return tagged fish information to the Game and Fish Department get a return letter with information on where and when their fish was tagged. You never know if your fish will be the next No. 8,351.

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